

REMARKS

Claims 1-26 are pending, with claims 1 and 18 being the independent claims. Claims 1 and 18 have been amended. No new matter has been added by way of this amendment.

Reconsideration of the rejections are respectfully requested.

An IDS was filed on September 17, 2004, along with four (4) references. This IDS was filed based on a Search Report dated July 23, 2004 and cited in corresponding European Patent Application No. EP 01 12 5836. An acknowledgement of the receipt and entry of the above IDS into the filewrapper of the present application is respectfully requested.

Independent claims 1 and 18, and dependent claims 5, 6, 10-17, 19, and 26 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,633,648 to *Bauck*, while dependant claims 2-4, and 20-22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Bauck* in view of U.S. Patent No. 6,243,476 to *Gardner*. In addition, dependant claims 6-9, and 23-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Bauck* in view of U.S. Patent No. 6,307,941 to *Tanner, Jr. et al.*

Independent claim 1 has been amended to recite the limitation, "a pair of left and right loudspeakers to provide a stereophonic audio output, the left and right loudspeakers being spaced apart from one another; [where] ... each loudspeakers [has] a single driver," while independent method claim 18 has been amended to recite the step of "inputting an audio signal comprising left and right audio channels to an audio system comprising left and right loudspeakers each having a single driver...." Support for this limitation can be found in Fig. 1 of the drawings which show that the left 10 and right 20 loudspeaker only has a single speaker element (i.e., one driver) (see also specification, pg. 11, lines 3-4). Accordingly, no new matter has been added by way of this amendment.

U.S. Patent No. 6,633,648 to *Bauck* relates to a system for increasing the area over which a satisfactory audio illusion is created and maintained. According to this patent, a multi-way loudspeaker pair with drivers operating over diverse frequency ranges is generally arrayed and employed in a horizontal direction (i.e., in the direction that the head of a listener is normally oriented). In addition, the higher-frequency drivers are generally placed closer together and displaced more towards the center of the listening space than the lower-frequency drivers. In addition, specially-adapted signal processing components for audio imaging are employed to create or maintain a desirable audio imaging (see col. 1, lines 6 thru 18). However, *Bauck* fails to teach the limitation "a pair of left and right loudspeakers to provide a stereophonic audio output, the left and right loudspeakers being spaced apart from one another; [where] ... each ... loudspeakers [has] a single driver," or the step of "inputting an audio signal comprising left and right audio channels to an audio system comprising left and right loudspeakers [that each have] a single driver, as respectively set forth in amended independent claims 1 and 18.

In col. 10, lines 45-56, *Bauck* states:

The collection of left loudspeaker 52 and right loudspeaker 56 are referred to as the loudspeaker array 50. In this embodiment, two-way left and right loudspeaker systems are described, being the simplest embodiment of the invention, but it will be understood that three-way, or generally, multiway, loudspeakers may be accommodated, and the loudspeaker systems may be arrayed in other ways and in other numbers than the usual symmetric left-right pair, according to the invention. Left loudspeaker 52 is comprised of a left woofer 53 and a left tweeter 55, and the right loudspeaker 56 is comprised of a right woofer 57 and a right tweeter 59.

Thus, *Bauck* discloses that each loudspeaker has at least two drivers (a woofer and a tweeter). With respect to the foregoing, the system disclosed in *Bauck* relies on playing back the high frequencies signals through a pair of loudspeakers that span a narrower dispersal angle than

the pair of loudspeakers that are used for playing back the low frequency signals, i.e., different dispersal angles for the low and high frequencies. This is shown in Fig. 2 of *Bauck*.

In contrast, the loudspeakers set forth in amended independent claims 1 and 18 playback the high and low frequencies at identical dispersion angles. This is achieved by the use of one driver for the left signals and another driver for the right signal, where each driver produces frequencies across the audio spectrum. The spatial expansion performed by the system and method of the present invention is achieved by introducing and filtering cross-talk from the left channel to the right loudspeaker and cross-talk from the right channel to the left loudspeaker to thereby only introduce cross-talk at frequencies below approximately 2kHz (see claims 1 and 18, and Abstract of the Disclosure). In view of the foregoing, Applicants respectfully assert that amended independent claims 1 and 18 are patentable over *Bauck*, and therefore reconsideration and withdrawal of the rejection under 35 U.S.C. §102(e) are respectfully requested.

U.S. Patent No. 6,243,476 to *Gardner* relates to a system for generating loudspeaker ready binaural signals. U.S. Patent No. 6,307,941 to *Tanner, Jr. et al.* relates to a method and system for providing improved virtual sound images. However, *Gardner* and *Tanner, Jr. et al.* fail to cure the deficiency of *Bauck*. Specifically, neither *Gardner* nor *Tanner, Jr.* teach or suggest the feature where each ... loudspeakers [has] a single driver. Accordingly, independent claims 1 and 18 are patentable over the combination of *Bauck*, *Gardner*, and *Tanner, Jr. et al.*, and a notice to that effect is earnestly solicited.

In view of the patentability of amended independent claims 1 and 18, for the reasons above, dependent claims 2-17, and 19-26 are all patentable over the prior art.

Based on the foregoing amendments and remarks, this application should be in condition for allowance. Early passage of this case to issue is respectfully requested.

It is believed that no fees or charges are required at this time in connection with the present application; however, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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By

A handwritten signature in black ink, appearing to read "Michael C. Stuart", is written over a horizontal line.

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